



CBI Product Factsheet: Exhaust Systems in the EU5

'Practical market insights for your product'

The economic downturn continues to have a significant impact on the European automotive industry. Although the EU economy is projected to grow in the second half of 2013, there is still a lack of consumer confidence in the key European automotive markets of the UK, Germany, and France. While forecasts may not be robust, this offers an excellent opportunity for DC suppliers to enter the market with competitive products.

Product definition

Exhaust systems are grouped under the label "Exhaust" (HS codes 87089210; 87089220; 87089235; 87089290) and are part of the sub-category "Parts, components, and accessories for all kinds of common automotive vehicles", under Automotive Parts and Components. This Product Factsheet discusses the market for exhaust mufflers/silencers and exhaust pipes as well as the related trims, tubes, and suspension parts in EU5 countries (i.e. the biggest EU economies: Germany, France, the UK, Italy and Spain).

Product specifications

Quality: Compliance with European and international standards on safety is required, as is as conformity to existing EU and national legislation and manufacturing practices.

Materials: Exhaust systems and parts for exhaust systems are typically made of steel, preferably corrosion-resistant steel types.

Catalytic converters are typically made from a combination of stainless steel and precious metals, such as platinum, palladium, and rhodium. Traces of manganese and cerium are also added. Very small amounts of nickel and copper are used in some catalytic converters. However, the European Union has ruled the use of nickel in catalytic converters illegal, while in North America it is illegal to use copper. Catalytic converters' cores are typically ceramic, but they can also be metallic.

Design: Automotive exhaust systems are used on a number of different vehicles with varying specifications. OEMs will have specific commercial and technical requirements for the exhaust system suppliers, while buyers in the aftermarket sector emphasize versatility and short lead times over volume.

Packaging & Labelling: In general, packaging is dependent on the buyer: either the OEM or end user (the aftermarket sector). In the aftermarket sector, the packaging is typically disposable, as it is discarded after being used just once. Returnable packaging is most often used by OEM suppliers, so as to reduce cost and to improve the efficiency of packaging operations. Returnable packaging is not discarded after use and the empty packaging is recycled by the OEM or by a designated packaging operator. In order to export to the EU, product packaging must comply with EU standards. To reduce the harmful impact of packaging on the environment, the EU has instituted legislation concerning the management of packaging and packaging waste.

Considerations for action

- For more information on packaging and packaging waste requirements, please refer to CBI Buyer Requirements database for more information on [EU legislation: Packaging and packaging waste](#)

Figure 1: Exhaust systems parts and their packaging



Source: Fotolia

Buyer Requirements

Legislative Requirements: The most important requirement for automotive components is that they comply with the technical standards set by EU legislation in order to guarantee vehicle and environmental safety.

Type-approval is a certification for various types of motor vehicles and their components, which includes agricultural and forestry tractors. The type-approval or certification is valid in all EU Member States and is required when selling any products in the EU. Many automotive components are not approved until the final assembly, in which case certification of individual components is not necessary, although these components will still have to comply with type-approval requirements.

The End of Life Vehicles (ELV) Directive aims to

Considerations for action

- Check with your buyer, or with [the approval authority of the country you want to export to](#), what the specific standards are for the parts you are manufacturing.
- Read more about type approval at the [EU Export Helpdesk](#).
- Check if your buyer uses the International Material Data System (IMDS). This is a collective, computer-based data system developed by automotive OEMs to manage environmentally relevant aspects of the

avoid environmental pollution during the scrapping process through reducing the hazardous materials used in vehicle production. Vehicles must be designed to facilitate proper dismantling and recycling (by coding the components), and the use of heavy metals such as lead, mercury, cadmium and hexavalent chromium is prohibited (with the exception of a few applications).

European emission standards define the acceptable limits for exhaust emissions of new vehicles sold in EU member states. Emission standards are defined in a series of European Union directives, which are progressively introducing an increasingly stringent standard.

different parts used in vehicles. It has been adopted as the global standard for reporting on material content in the automotive industry.

- For the emission standards please consult the European Commission [Transport & Environment section](#)

Common buyer requirements: In addition to legislative approval, there are other common buyer requirements. While these are not obligatory in the legal sense, they are implemented by various competitors in the market and are thus necessary in order to compete effectively.

Quality Management: In order to apply for type-approval, production processes need to meet quality management criteria. ISO TS/16949 and ISO 9001 are accepted as standard requirements and EU buyers and manufacturers often insist on them.

Corporate social responsibility (CSR) and the extent to which buyers expect a certain level of social and environmental performance is becoming increasingly important. Bigger EU companies have developed their own CSR policies and require their suppliers (and their sub-suppliers) to conform to these. Signing a supplier code of conduct is often a prerequisite. These codes of conduct generally cover compliance with local laws, protection regarding workers' health and safety, respecting basic labour rights and also business ethics. The implementation of an environmental management system is often a requirement for core suppliers.

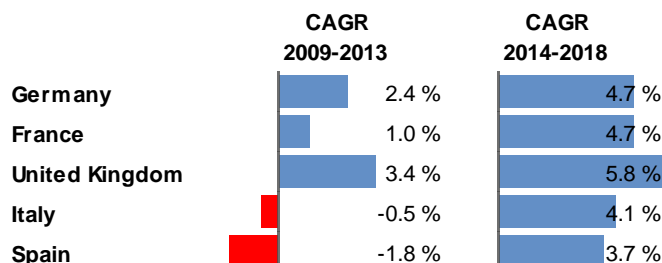
Considerations for action

- Implement ISO 9001 and ISO TS/16949, as it is a standard requirement of EU buyers. Click [here](#) for more information on ISO TS/16949 at the ISO website
- Most big car brands publish their CSR policies and supplier code of conduct on their websites. An internet search for these may give valuable insight into assessing your company's performance by comparison.
- Implement an environmental management system, such as [ISO 14001](#), as it is a common requirement.

Macroeconomic statistics

The GDPs of the EU5 countries grew by only 1.3% on average between 2009 and 2013. However, the IMF predicts a considerable rise in the GDPs of all of the EU5 countries between 2014 and 2018. The estimated UK GDP CAGR for 2014-2018 is an impressive 5.8%, followed by solid increases in all other EU5 countries. Italy and Spain, in particular, went from negative growth in 2009-2013 to a predicted growth of close to 4% for 2014-2018.

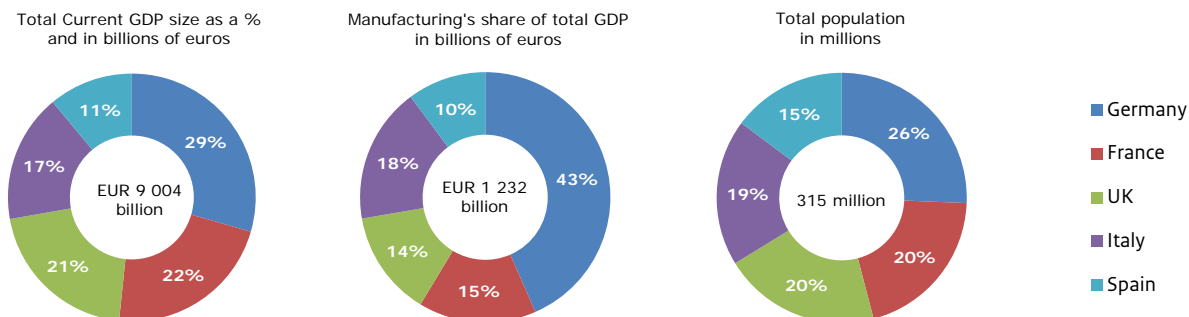
Figure 2: GDP Compound (current prices) Annual Growth Rate (CAGR) for 2009-2013 and 2014-2018 in the EU5



Data source: IMF 2014, World Economic Outlook Database

The total GDP for the EU5 countries was estimated at more than €9 trillion in 2013. Germany is the largest market in the EU5 with a GDP of €2.65 trillion, accounting for almost one-third of the total GDP, and with by far the strongest manufacturing base of all the EU5 nations (€535 billion in 2013). Germany is followed by France and the UK, each of which represent roughly one-fifth of the GDP value and 15% of total manufacturing for the five countries. With its GDP in 2013 close to €1 trillion and manufacturing at €125 billion, Spain is the smallest of the five economies.

Figure 3: Key 2013 macroeconomic indicators for the EU5, in billions of euros (population in millions)



Data source: IMF and OECD 2014

Trade Statistics

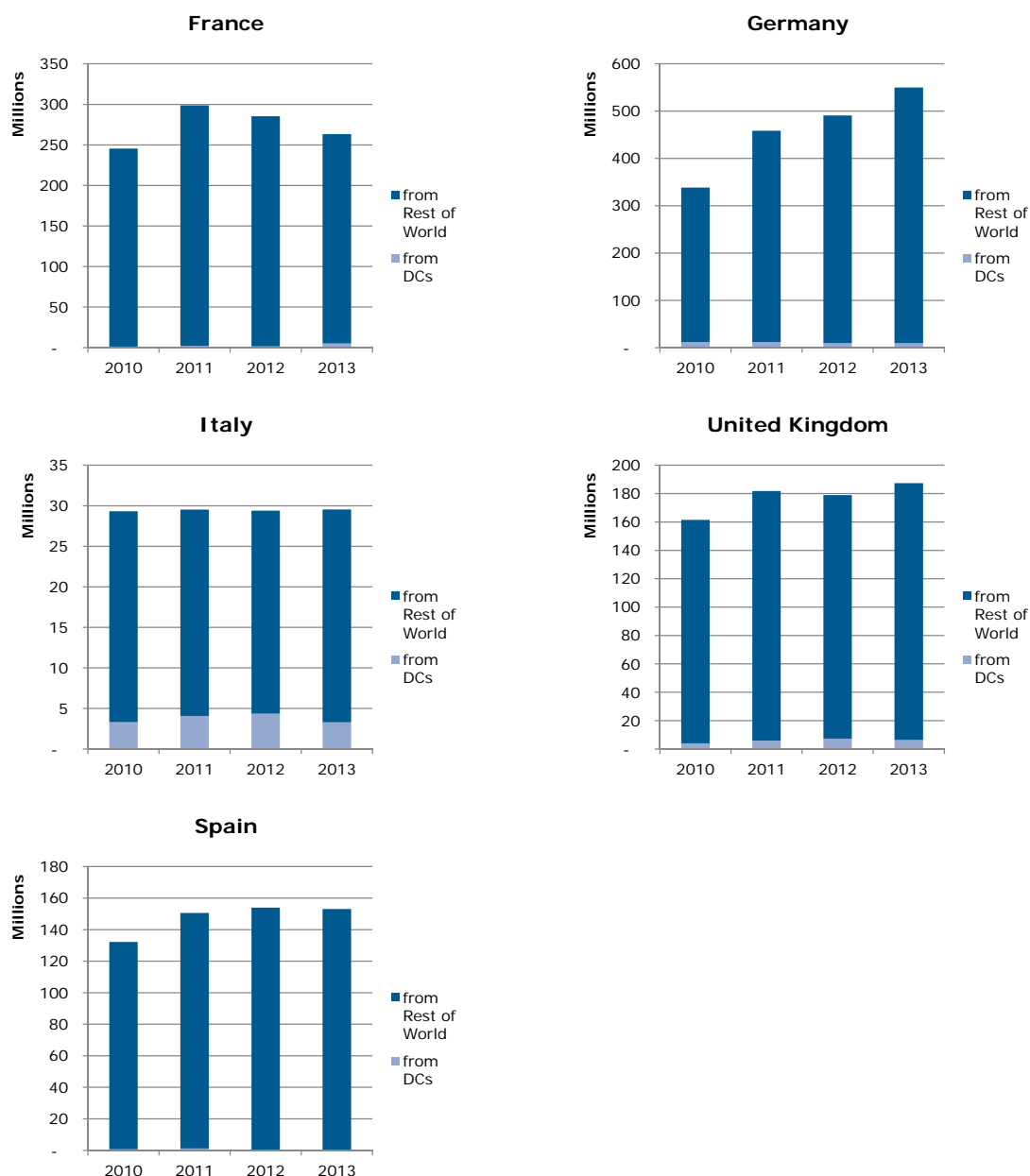
Imports and exports

The EU5 imported roughly €1.2 billion worth of exhaust systems in 2013. Germany alone represents nearly 47% of the imports, standing at €550 million in 2013. It is followed by France at €263 million and the UK at €187 million. Imported exhaust systems are shipped mainly from Western and Eastern Europe and from other developed countries such as Japan and the United States.

Imports of exhaust systems from the DCs to the EU5 represented almost €25 million (2.1% of total imports) in 2013 and grew at a CAGR of 4.9% between 2010 and 2013. Germany, France and the UK together represent nearly 85% of DC exhaust system imports.

The biggest DC exporters of exhaust systems to the EU5 are Turkey (€10.5 million) and China (€9 million), accounting for approximately 78% of exhaust system imports from the DCs to the EU5. Italy has the largest share of exhaust system imports from the DCs, with 11.2%, which indicates a willingness to source these materials from developing countries.

Figure 4: Total import of exhaust systems in the EU5 countries, 2008-2012, in millions of euros (the range of the y-axes varies by country due to different import levels)

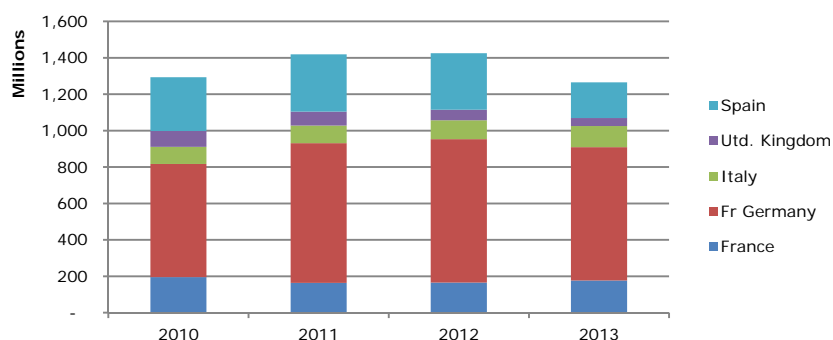


Data source: Eurostat 2014

The EU5 is a net exporter of exhaust systems, and in 2013 it exported close to €1.3 billion worth of them. Germany is by far the largest exporter of exhaust systems among the EU5 countries, with €732 million in exports (a 58% share of all EU5 exhaust system exports). It is followed by Spain with €196 million (a

16% share of the total). EU5 exhaust system exports have been declining at a -0.7% CAGR between 2010 and 2013. The export market is subject to demand in the developed countries, as roughly 85% of the exports are sold in Western and Eastern Europe and in other developed countries. However, it must be noted that while exports to the Rest of the World have been declining, exports to the DCs have been growing at a CAGR of 8.7%. China, Mexico, Brazil and South Africa are the largest importers and together account for roughly €148 million.

Figure 5: Total exports of exhaust systems from EU5 countries, 2010-2013, in € millions



Data source: Eurostat 2014

Market trends and opportunities

Although the European market is expected to grow slowly over the short/medium term, there are still opportunities to be explored by the DC exporters within the EU5, particularly in Germany and other aftermarket sectors within the region.

Germany is the biggest European market for exhaust systems with estimated imports of €550 million in 2013 (up from €338 million in 2010). With an average compound growth of 17.6% per year, Germany is an excellent market for DC exhaust systems exporters. France and the UK are the second and the third largest EU5 markets for exhaust systems, with imports of €263 million and €187 million respectively in 2013. Italy has the highest share of the DC imports for exhaust systems with 11%, which indicates a willingness to source its exhaust systems from developing countries.

For more information on automotive market trends and opportunities, please refer to [CBI Trend Mapping for Automotive Parts and Components](#).

Price

Apart from the distribution of new parts, the aftermarket for automotive parts also encompasses the vigorous distribution of used or overhauled parts and components. Pricing depends on supply chain positioning. The aftermarket sector, in particular, is very discount-driven and has varied mark-ups at each distribution step for different parts and components. Due to the large variation in parts types and models, it is difficult to provide a general overview of exhaust systems prices, but it is possible to provide some insight into the margins imposed by different players in the supply chain. Based on the margin ranges, DC suppliers selling to a tier 3 supplier in the OEM supply chain could price their products at between 64% and 81% of the OEM delivery price. In order to better ascertain prices of specific products and models,

check the internet to determine the appropriate range, or talk directly to wholesalers and/or retailers. The price of branded spare parts will not differ greatly among the various countries. Those players who are active in several European countries have largely harmonised their prices, and any differences in pricing may be because of different logistical and local costs. In the Original Equipment sector, the price is set by contracts of four years or more, which usually include a 3-5% price reduction each year after the first year. In the aftermarket sector, the prices are negotiated every year.

OEM supply chain	Margin
Tier 1 supplier delivering to OEM	6-8%
Tier 2 supplier delivering to tier 1	6-15%
Tier 3 supplier delivering to tier 2	10-25%
Aftermarket OES supply chain	Margin
Tier 1 delivering to OEM for OES sales through approved service chain	10-30%
Tier 1 delivering to OEM for OES sales through independent outlets	10-25%
OEM delivering OES parts through its approved service chain	25-65%
OEM delivering OES parts through independent outlets	30-40%

Main sources

- [European Commission's macroeconomic publications](#)
- [IMF](#) – a good source for macroeconomic information
- [OECD](#) – a good source for macroeconomic and industry-specific information
- [European Commission's Directives and Regulations pertaining to motor vehicles, their trailers, systems and components](#)
- [CLEPA](#) - the European Association of Automotive Suppliers
- [ACEA](#) - the European Automobile Manufacturers Association
- [Ernst & Young's Automotive information](#) - Automotive information – a good source of automotive information
- [Ernst & Young's European Automotive Survey 2013](#) – interviews mostly with automotive suppliers
- [Inovev](#) - Worldwide automotive knowledge platform that offers free-of-charge and fee-based content Trade fairs are a good place to network, to meet buyers and to promote your company. The most prominent automotive trade fairs in Western Europe are: [Hannover Messe](#) - the world's leading trade fair for industrial technology taking place in Germany; [Internationale Automobil-Ausstellung](#) (annual) – German automotive trade fair; the [Barcelona Motor Show](#) (biennial) – Spanish automotive trade fair; the [British International Motor Show](#) (organized by SMMT once every two years); the [Paris Motor Show](#) (biennial) – French automotive trade fair and the [Bologna Motor Show](#) (annual) – Italian automotive trade fair.

More information

CBI market information:

- [CBI Buyer Requirements: Automotive Parts and Components](#)
- [CBI Buyers' Black Box: Automotive Parts and Components](#)
- [CBI Market Channels and Segments Automotive Parts and Components](#)
- [CBI Market Competitiveness Automotive Parts and Components](#)

This survey was compiled for CBI by Global Intelligence Alliance

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